RECEIVED CENTRAL FAX CENTER

AUG 17 2006

Patent

Avago Technologies Docket No.: 70030419-1

AMENDMENTS

Listing of Claims

The following listing of claims replaces all prior versions. Please amend the claims as follows:

- 1 Claims 1-3 (cancelled).
- 1 Claim 4 (previously presented): An optical source, comprising:
- an optical emitter;

5

6 7

8

- an encapsulant covering the optical emitter, and
 - a diffractive element integrated into the encapsulant, wherein the encapsulant intercepts and passes light from the optical emitter to the diffractive element, wherein the diffractive element diffracts the light to form a predesignated optical radiation pattern and wherein the optical emitter is positioned at a conductive mounting site of a conductive heat sink and the optical source is a surface mount device.
- 1 Claims 5-7 (cancelled).
- 1 Claim 8 (original): An optical source, comprising:
- an optical emitter providing an optical signal; and
- a diffractive element integrated into an encapsulant covering the optical emitter, intercepting the provided optical signal and diffracting the optical signal to form a
- 5 predesignated optical radiation pattern.
- 1 Claim 9 (original): The optical source of claim 8 wherein the optical emitter is an LED.
- Claim 10 (original): The optical source of claim 8 wherein at least one of the optical
- 2 emitter and the encapsulant includes a secondary emitter.
- Claim 11 (original): The optical source of claim 8 wherein the diffractive element has

- one of a binary grating profile, a sawtooth grating profile, a sinusoidal grating profile, a multiple phase-level grating profile, and a binary subwavelength grating profile.
- 1 Claim 12 (original): The optical source of claim 8 wherein the encapsulant covering the
- 2 optical emitter encases the optical emitter.
- 1 Claim 13 (original): The optical source of claim 9 wherein the optical emitter is
- 2 positioned at a conductive mounting site of a conductive lead.
- 1 Claim 14 (original): The optical source of claim 11 wherein the optical emitter is
- 2 positioned at a conductive mounting site of a conductive lead.
- Claim 15 (original): The optical source of claim 9 wherein the optical emitter is
- 2 positioned at a conductive mounting site of a conductive heat sink and the optical
- 3 source is a surface mount device.
- 1 Claim 16 (original): The optical source of claim 11 wherein the optical emitter is
- 2 positioned at a conductive mounting site of a conductive heat sink and the optical
- 3 source is a surface mount device.
- 1 Claim 17 (cancelled).
- 1 Claim 18 (cancelled).
- 1 Claim 19 (withdrawn): A method, comprising:
- 2 generating an optical signal with an optical emitter;
- 3 transmitting the optical signal through an encapsulant;
- 4 diffracting the optical signal transmitted through the encapsulant by a diffractive
- 5 element integral to the encapsulant to form a predesignated optical radiation pattern.
- 1 Claim 20 (withdrawn): The method of claim 19 wherein the diffractive element has one
- of a binary grating profile, a sawtooth grating profile, a sinusoidal grating profile, a

Patent

Avago Technologies Docket No.: 70030419-1

multiple phase-level grating profile, and a binary subwavelength grating profile.